

ABSTRACT OF THE DISCLOSURE

In order to establish processing techniques capable of making multi-tip probes with sub-micron intervals and provide such microscopic multi-tip probes, there is provided an outermost surface analysis apparatus for semiconductor devices etc. provided with a function for enabling positioning to be performed in such a manner that there is no influence on measurement in electrical measurements at an extremely small region using this microscopic multi-tip probe, and there are provided the steps of making a cantilever 1 formed with a plurality of electrodes 3 using lithographic techniques, and forming microscopic electrodes 6 minute in pitch by sputtering or gas-assisted etching a distal end of the cantilever 1 using a focused charged particle beam or using CVD.